

**UNITED STATES AIR FORCE
ARMSTRONG LABORATORY**

**FEASIBILITY OF USING INDIVIDUAL
DIFFERENCES IN EMOTIONALITY AS
PREDICTORS OF JOB PERFORMANCE**

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CONTENTS

	Page
Executive Summary	1
Introduction.....	1
Taxonomies and Definitions of Emotions	3
Overview of Emotionality.....	3
Emotions, Mood and Personality.....	5
The Study of Emotions in Work Settings	6
Displayed Versus Felt Emotions	6
Positive Affect.....	9
Anger and Negative Affect	10
Job Demands and Individual Differences.....	13
Summary	14
Model of Emotionality and Work	14
Stimulus Environment	14
Emotions.....	15
Individual Differences in Emotionality	15
Organizational Factors	18
Congruence or “Fit”	18
Emotions Linked to Job Relevant Outcomes	19
Relationship to Perceived or Rated Job Performance	21
Implications of the Model.....	22
Measurement of Emotionality	22
Physiological Measurement.....	22
Induction.....	23
Naturalistic Observation	23
Self Report Using Surveys or Interviews	23
Specific Measures of Emotionality	26
Emotional Profile Index.....	26
Wallbott and Scherer Emotionality Questionnaire.....	27
Ambivalence Over Emotional Expression Questionnaire.....	28
Emotional Expressiveness Questionnaire.....	28
Self Conscious Affect and Attribution Inventory.....	29

CONTENTS (Cont'd)

	Page
Novaco Anger Inventory.....	29
Anger Self Report	29
Summary	29
Measurement of Organizational Factors	30
Summary	31
Feasibility of Using Measures of Emotionality to Predict Job Performance	31
Suggested Avenues for Future Research.....	32
Applied Reasons for Studying Emotionality in Organizations	33
A Final Word	35
References.....	36
Appendix: Sample Items from Questionnaires Assessing Emotionality	44
Footnotes.....	47

FIGURES AND TABLES

Figure 1. Model of Emotionality and Work.....	15
Figure 2. Model of Individual Difference in Emotions	17
Figure 3. Organizational Boundaries on Emotions.....	19
Table 1. Examples of Positive and Negative Affect.....	4
Table 2. Measures of Emotion or Emotionality.....	26

PREFACE

This literature review was performed under contract number F33615-91-D-0010, task number 0008 awarded to Metrica, Incorporated, 10010 San Pedro, Suite 400, San Antonio, TX 78216-3856 who involved Dr. Richard D. Arvey and Mr. Gary Renz of the University of Minnesota. The work was completed under work unit 1123A705. Dr. Thomas W. Watson was the task monitor. The authors thank Dr. Walter G. Albert for including this research as a task in an existing contract. They also thank Lt Eric Herbek for checking the accuracy of references on an earlier draft. Thanks also go to Ms. Sharon McDonald for solving word processing problems associated with using two different software packages and for finalizing the manuscript. Appreciation is also expressed to Dr. M. Jacobina Skinner, Mr. Larry T. Looper, Dr. Walter G. Albert, and Dr. Sherrie P. Gott for reviewing the manuscript, to Ms. Amy Edge for checking the final reference list and to Ms. Shirley D. Walker for monitoring the progress of the manuscript and making final preparations for publication of this report.

Executive Summary

In this report, the feasibility of using knowledge about emotions and emotionality to improve personnel management practices and increase the understanding and prediction of performance and other organizational outcomes are addressed. The report is divided into several logical sections. First, the definitions of emotion and emotionality are discussed. While these are primary constructs in psychology, the field has not reached a consensus on how to define, classify, or measure them. Existing taxonomies identify from two to ten emotion factors (some using bipolar and others using unipolar dimensions) while others define emotions in terms of more global underlying constructs. The authors do not resolve the issue, but note that some models of emotionality may be useful because of functional considerations.

Second, existing literature dealing with emotions and emotionality in work settings is reviewed. Relatively little research has been done in this area despite the obvious connection between emotion, work behavior, and work outcomes. However, sufficient literature was identified to support the authors' contention that emotional expression is a fertile area for investigation in work settings, particularly in terms of the association between emotions and work outcomes.

Third, the authors develop a simple model of how individual differences in emotional expression, combined with organizational, occupational, and job demands, influence the way individuals react to triggering stimuli that set off emotions and affect job behaviors and performance. While existing research is only suggestive, the authors propose that there are individual differences in the content and type of emotion displayed, the amplitude of emotion, and the duration of emotion triggered by stimuli in work settings.

Fourth, the methods used to measure emotions and emotionality are discussed and a variety of self-report measures of emotionality are reviewed. Several may be useful for organizational research and personnel assessment, although refining existing measures or developing new ones appears necessary.

Fifth, the authors summarize their view that it is indeed feasible for measures of emotions or emotionality to show incremental validity in predicting job behaviors, performance and other work outcomes. Future research should investigate this possibility.

Finally, the authors discuss a number of applied reasons for studying emotions in organizations.

Introduction

To give an idea of the need to study emotions at work, consider the following fictional episode: A cardio-vascular surgeon, encounters difficulties while conducting open-heart surgery.

The surgeon goes into a tantrum, begins to yell at the assisting nurses, and finally throws an instrument across the room in a display of anger. The operating staff suffer the outbursts in silence, but later privately indicate that the doctor's behavior is not unusual. They felt demeaned, embarrassed and frightened. As a result, they were not able to assist efficiently during crucial moments of the operation, and the patient died.

Consider also another episode which was resolved successfully: An airplane pilot experiences engine trouble at 30,000 feet. The aircraft is full with passengers and crew as it begins to free-fall. The pilot experiences an initial panic attack that nearly immobilizes him. However, he quickly recovers, and begins to diagnose the problem using instrumentation. The pilot and crew diagnose the problem, right the aircraft, and bring it in for an emergency landing. No one was hurt.

Here is yet another episode involving emotions: A football coach brings team members into the dressing room at half-time and gives them a loud, emphatic, emotionally-charged pep talk. He challenges players to get more physical on the field. They go on to rout the opposing team during the next half and win the game.

Do emotions impact on work related behaviors and performance in organizations? Reading these incidents suggests that they do. Emotions and the regulation of their display may play an important role. Yet, research in industrial and organizational settings on emotions is sparse. This report examines the role of emotions and emotionality in organizations and the utility and feasibility of measuring emotion to enhance the prediction of job performance and other outcomes.

It is well known that predicting job performance is difficult and imprecise. Generally, the predictive validities of cognitive tests rarely exceed .50, which explains only 25% of the criterion job performance variance (Ghiselli, 1973; Kanfer, Ackerman, Murtha, & Goff, 1995). The search for additional predictors that can add incremental validity has been ongoing for some time. Typically, these searches take the form of developing and assessing new cognitive and psychomotor tests as well as examining the predictive validities of personality measures. There has been little, if any, attention placed on examining emotion or emotionality constructs as potential predictors of future job performance. "Everybody knows" that individuals exhibit a range and depth of emotion on the job and that such emotion impacts their behaviors and the resulting perceptions of their performance. Nonetheless, little thought has gone into the logical questions of 1) whether measures of individual differences in emotional expression exist or could be developed and 2) whether such measures could be used to predict future job performance or other work outcomes.

This technical report explores these issues. Specifically, the objectives of this report are to: (a) provide an overview and definition of emotion, and the broader concept emotionality, (b) review existing literature on emotions and emotionality in organizational settings, (c) develop an initial model of emotionality to guide future research, (d) review existing measures of emotion, (e)

evaluate the utility and feasibility of using measures of emotion to predict job performance or other outcomes, and (f) suggest applied reasons for studying emotionality in organizations.

Taxonomies and Definitions of Emotion

Overview of Emotionality

Emotion and emotionality are central concepts in psychology and related disciplines and have been so for decades. Research on emotions dates back at least to the second half of the 19th century with the work of Darwin and James (Oatley & Jenkins, 1992). Although emotions and emotionality are sometimes confused, emotionality is usually defined as a combination or syndrome of responses of which the subjective feeling called emotion is only one aspect of the complete experience (Plutchik, 1989; Wallbott and Scherer, 1989). Emotion and emotionality remain difficult concepts to define and measure (Malatesta & Izard, 1984, pp. 15-16; Reeve, 1992, pp. 340-341).

Emotion has been viewed as a complex subjective experience comprised of "emotion-specific feeling states (affective components), perceptions of physiology and expression (body-perceptual components) and emotion-specific cognition (cognitive components)" (Pekrun & Frese, 1992, p. 154). As Schachter and Singer (1962) demonstrated some time ago, emotion is more than physiological arousal: a cognition appropriate to the arousal is an important component which can be experimentally manipulated. Plutchik (1989) characterized emotionality in terms of complex chains of events consisting of the interpretation of the triggering stimulus, subjective feelings, physiological changes, any preparations for action, and any overt action. In these definitions, emotionality is complex and subjective feelings are one part of the entire emotional experience of feelings, physiological states, cognitions, and behavioral manifestations.

Emotions are thought to be stimulus driven; that is, they are responses to immediate and specific situations, events, ideas, or environments. Plutchik (1989) points out that these emotional triggers need to be interpreted, and thus cognition plays a key role. Emotions are theorized to be adaptive because they "signal" to the person that things either need attention or that attention is no longer needed. Thus, feelings are informational as well as motivational, creating a type of feedback (Frijda, 1988, cited in George & Brief, 1994; Hochschild, 1983, pp. 208-210, 220-222; Pekrun & Frese, 1992, p. 154). In response to this signal, people may interrupt ongoing behaviors and set new priorities for their actions, perhaps according to how strongly the emotions are felt (George & Brief citing Simon, 1967; Carver & Scheier, 1990; Klinger, 1982). Consistent with this description, Oatley and Jenkins (1992) define emotions as communications to oneself and others. To oneself they may signal events related to goals and help to maintain consciousness about the causes and consequences of these events. To others emotions may indicate a shift in one's intentions or readiness to act.

Complex, sophisticated taxonomies of emotions exist. For example, in the 1950's investigators used factor analysis and multidimensional scaling methodologies to generate an eight factor, unipolar taxonomy (Green & Nowlis, 1957). Using a subset of these adjective factors, Borgatta (1961) found six factors: lonely (or depression), warm-hearted, tired, thoughtful, defiant (or aggression), and startled (or anxiety). The Differential Emotions Scale isolates ten unipolar dimensions of emotionality: interest-excitement, enjoyment-joy, surprise-startle, distress-anguish, disgust-revulsion, anger-rage, shame-humiliation, fear-terror, contempt-scorn, and guilt-remorse (Lorr, 1989, citing Izard, 1972).

Using a more theoretical model of emotionality, Thayer (1967) assessed emotionality in terms of an "activation-deactivation" dimension utilizing an adjective checklist. Thayer found four factors within this narrow construct: general activation (lively, active), high activation (tense, jittery, intense), general deactivation (at rest, leisurely, calm), and deactivation-sleep (sleepy, tired).

Perhaps the most comprehensive theory is Plutchik's (1989) psychoevolutionary theory of emotions, which views emotionality as an adaptive response to a situation that helps to ensure survival. Based on his theory that certain types of behaviors are needed to survive, Plutchik hypothesized that there are corresponding emotions that stimulate these primary survival behaviors. Plutchik's broad classes of behavior and their associated emotions are: incorporation (acceptance), rejection (disgust), destruction (anger), protection (fear), reproduction (joy), deprivation (sorrow), orientation (surprise), and exploration (expectation) (Plutchik, pp. 6-10).¹

While a variety of taxonomies of emotions and emotional structure exist, many scholars now conceive of emotions in terms of two unipolar dimensions, not one bipolar dimension as in people's naive theories (George & Brief, 1994; Zevon & Tellegen, 1982). Research by Watson and Tellegen (1985) discovered that two unipolar (positive and negative) factors accounted for 50-75% of common measurement variance. These unipolar dimensions reflect a state of arousal at the high end, and an absence of emotional involvement at the low end of each dimension. Watson and Tellegen suggested that the positive and negative dimensions are second-order factors that are superordinate to the more factorially complex structures of other researchers.

The list in Table 1 illustrates the two dimensions of positive and negative affect, with examples of loosely corresponding, but opposite emotions in each column:

Table 1. Examples of Positive and Negative Affect

Positive Affect	Negative Affect
Joy and happiness	Sadness and anger
Pride	Shame and guilt
Fun	Boredom
Hope	Hopelessness and depression
Relief	Anxiety and disappointment
Gratitude	Hate and envy
Admiration	Contempt

The studies mentioned above demonstrate the confusion surrounding emotionality and its structure. Some studies found six to ten unipolar dimensions. Others found six or eight bipolar dimensions. Thayer (1967) introduced a four-factor activation dimension with unipolar and bipolar attributes, and a hierarchical structure can be found if the two factor, unipolar structure of positive and negative affect is assumed to underlie the various emotional structures. Obviously, consensus on the structure of emotionality has yet to be reached. Research results are highly dependent on the measures and methodology used (Lorr, 1989).

A simple two-factor structure (i.e., with positive and negative unipolar dimensions) may be the most tractable structure. It offers a reasonable simplification of the complexity of emotionality, and may be particularly useful where additional complexity may not be needed to represent emotionality. Alternatively, Plutchik's (1989) model of adaptive behaviors and corresponding triggering emotions may also be a productive starting point. In his model, for example, the emotion of fear is associated with "avoidance" or "withdrawal" behaviors, whereas anger is associated with "attacking" or "approach" behaviors. Note, however, that the emotions in Plutchik's taxonomy could also be classified in terms of positive or negative emotionality.

Although the authors believe that the two-factor structure of negative and positive emotions may be useful, caution is in order. No inferences can be made about the relationships between emotions characterized as "negative" or "positive" and the type or quality of job behaviors. Negative emotions could have productive, energizing and directive influence, or they might result in dysfunctional behaviors. As discussed more fully later, anger and fear may be acceptable emotions in "reasonable" amounts. In the extreme, however, they might become dysfunctional to the individual, to other people, and to the organization. For example, extreme anger can result in hostile, aggressive acts and blaming of co-workers. Conversely, controlled anger could motivate workers to overcome barriers causing a problem (Edmunds & Kendrick, 1980, p. 21; Novaco, 1975, pp. 3-6).

Similar arguments could be made for other emotions. Extreme fear can become anxiety and panic, either of which could easily impair job performance and personal health. On the other hand, if kept within the person's ability to cope, fear and anxiety can be highly motivating. Anxiety can improve performance, as shown by the familiar inverted U-shaped relationship between anxiety and performance.

Emotions, Mood and Personality

The emotion and performance literatures use the terms affect, mood, personality disposition, feelings, and emotion inconsistently, interchangeably, and ambiguously (see Plutchik, 1989, p. 12). Mood and emotion are sometimes used as synonyms to mean any state of mind with a feeling component. Even when differentiated from emotion, mood is used inconsistently. Mood is sometimes treated as a trait-like construct (George & Brief, 1994). Yet, other studies operationally define mood as a short-term (20 minutes) affective state (Isen & Baron, 1991). This type of "feeling" would ordinarily be considered a "state" rather than a trait because it is so short-lived. The authors choose to define emotions as particularly intense feelings that are focused on a target and which may alter thought processes (see George & Brief, citing Simon, 1982). In contrast, moods are "generalized feeling states that are not necessarily focused on any particular target..." (George & Brief, p. 14). Plutchik defines emotion as "immediate feelings," mood as feelings experienced over a longer period of time, and personality traits as feelings frequently experienced over a long period of time. Accordingly, the authors assume that moods are unfocused feelings of low intensity and relatively long duration. Personality involves feelings (and other elements) that are more consistent than moods and of even longer duration.

The distinction between personality and emotions is somewhat tenuous as well. Personality traits may predispose a person towards certain feelings or attitudes, but these traits are not assumed to be as intense and demanding as emotions. However, if emotional responses occur in many situations, then they become the basis for characterizing a person in terms of personality traits. For example, repeatedly feeling and showing anger suggests the personality trait of being quarrelsome or hostile (Plutchik, 1989, p. 9). Personality is also a broader concept than emotionality, encompassing many constructs, such as being helpful. This construct is outside the usual conception of emotionality.

Whether emotions "create" the construct called personality, or whether personality predisposes people to experience specific emotions is probably a "chicken or the egg" problem. For the purposes of this review, the role of emotions in performance can be distinguished from personality. Emotions are important because their intensity may cause them to demand more attention, and thus be more motivating than personality traits. While emotionality is not independent of personality, the authors hypothesize that emotions are more motivating and predictive of behaviors than either mood or personality. In other words, personality traits may

predispose a person to experience and display certain emotions, but the proximal or more direct determinants of behavior in many situations are emotions, not personality.²

The Study of Emotions in Work Settings

Pekrun and Frese's (1992) review found only a few studies of emotions in work settings, despite the intuitive relationship between emotions and work. The review by Oatley and Jenkins (1992) was more general and did not focus on work settings. Of course, researchers have long studied job satisfaction, a concept which Locke (1976) and Landy (1978) identified as a pleasant emotional state (see page 10). Despite the limited research, enough information is available for the authors to discuss several facets of this topic below.

Displayed Versus Felt Emotions

Organizational researchers make the distinction between "displayed" (or expressed) and "felt" (or experienced) emotion (e.g., Hochschild, 1983; Rafaeli & Sutton, 1989). "Felt" emotion is what emotional research usually targets. These are the familiar inner feelings that everyone experiences (although not all people are aware of all their emotions). "Displayed emotion" refers to performing behaviors that typically reflect an emotional experience. Outward displays of emotionality include facial expressions (e.g., smiling, laughing, crying), speech (e.g., silence, loudness, intonation), and physical movements and gestures (e.g., hitting, pushing, touching) (Lytle, 1992).

The complicating wrinkle is that people often express or display emotions they do not feel, or their displays do not accurately reflect their true felt emotions (Hochschild, 1983; Rafaeli & Sutton, 1989). Social and organizational norms define and restrict the acceptable range of emotional expressiveness (Wallbott & Scherer, 1989, p. 60). Many situations demand displays of specific unfelt emotions, or the suppression of felt emotions. For example, smiling is a displayed "emotion" which may be required on the job, especially in customer service jobs such as those of flight attendants, cashiers, and amusement park employees (Hochschild, pp. 4-16; Rafaeli & Sutton; Van Maanen & Kunda, 1989). The expressed smile in such situations may be simply displayed (as an expected part of the job with an unknown or unfriendly customer) or it may be felt (with a well known, kind or friendly customer).

When the person feels no emotion or the displayed emotion is inconsistent with the felt emotion, then the phrase "displayed emotion" may be a misnomer. In the work context, so-called "displayed emotions" are simply job-related behaviors without any emotional underpinning (e.g., a flight attendant smiling pleasantly while feeling no happiness or friendly feelings) (Hochschild, 1983, pp. 3-17). Displayed emotions may also be self-serving attempts to ingratiate oneself with management and supervisors (Isen & Baron, 1991, pp. 38-39). Some writers feel that "display

behaviors" or "display rules" are more appropriate labels because they do not imply that emotionality is involved (Ashforth & Humphrey, 1993; Rafaeli & Sutton, 1989).

Displays of false emotion have been called "emotional work" when done for private or social reasons, and "emotional labor" when done for pay (Hochschild, 1983, pp. 6-8).³ Services jobs dealing with customers, like wait persons, flight attendants, Disney World employees, cashiers and bank tellers are particularly likely to be told to be pleasant and smiling on the job irrespective of their feelings or customer treatment toward them. Bill collectors and police officers also perform emotional labor when they try to appear hostile when they do not feel hostile (Hochschild, pp. 3-17; Rafaeli & Sutton, 1989, pp. 16-42).

Van Maanen and Kunda (1989) point out that the degree of "emotional labor" involved varies as a function of how difficult it is for people to control their emotional displays. Accordingly, there is more emotional labor in the complaint department of a store, where emotions can easily be triggered by irate customers, than in the stockroom, where there is little customer interaction and the organization can impose "display rules" that must be followed by the employees.

Organizational rules and norms for emotional display affect interpersonal relationships, intra- and inter-group communications, and interdependent tasks. Theoretically, there are organizationally specific sets of "display rules," or norms regarding when and how emotions may be expressed in organizations. Lytle (1992) hypothesizes that display norms: (a) operate as social influence tools to alter the mood or impression of targets, both positively (flight attendants and sales people) or negatively (police and bill collectors), (b) create a sense of identity and cohesion within a group, especially within occupational and other social groups, (c) form a non-verbal jargon that facilitates communication within a group, including demands for specific tasks and behaviors from other group members, and (d) increase an individual's sense of belonging through compliance with the norms.

After discussing Disneyland and a high technology firm in terms of emotional displays and employee socialization, Van Maanen and Kunda (1989, pp. 85-93) concluded that attempts to control emotional displays and foster a certain "culture" constitute a new form of control which they describe as the "dark side of culture." Van Maanen and Kunda, and Hochschild (1983) raise a critical point that controlling emotional displays can have a "dark side" that leads to unintended, but foreseeable outcomes.⁴

Researchers have hypothesized that incongruence between felt and displayed emotions may create personal distress. This conflict has been called "ambivalence" (Katz & Campbell, 1994), or "emotional dissonance" (Hochschild, 1983; Rafaeli & Sutton, 1989, p. 37). For example, reserved people may have a hard time displaying emotion, whether felt or not, and expressive people may

have a hard time suppressing emotion. Either situation could result in emotional conflict or ambivalence.

Whether emotional dissonance is harmful has been researched for some time without being resolved (Hochschild, 1983; King & Emmons, 1990; Rafaeli & Sutton, 1989, p. 37). "Bottled-up emotions" have been associated with psychological and physical illness, such as coronary heart disease. This is particularly true for negative emotions like anger and hostility (King & Emmons; Novaco, 1975, pp. 60-62). However, no one seriously contends that uncontrolled emotionality is desirable in all situations. Some emotional dissonance is simply inevitable. The relevant question is how different individuals respond to the emotional dissonance created by emotional work.

Recent research indicates that both emotional expression and inhibition can be healthy or unhealthy depending on the degree of conflict between one's desired type of emotional display and the norms or external demands (e.g., job duties) for emotional displays. Forced to be expressive when uncomfortable with displaying emotion, a person's health and job performance may suffer. Similarly, being forced by norms and rules to restrict or suppress felt emotions when the person wants to display emotion can also create physical and psychological problems (King & Emmons, 1990; Pennebaker, 1985). Harm seems to occur when the person prefers one type of expressiveness and the organization prefers another type.

The potential for harm need not only be to individuals, but also to their organizations. For example, if workers must suppress their emotions or interact daily with others in false, insincere ways, this may have a negative effect on outcomes such as worker motivation, job satisfaction, workgroup cohesion and productivity.

Positive Affect

There has been some recent research dealing with positive affect. Isen and Baron's (1991) review noted that positive affect, simply defined as "pleasant feelings," has been found to create many changes in organizational behavior, both good and bad.⁵ Positive affect increased behaviors of helping others, cooperation, generosity, and reduced overt aggression and hostility during negotiations (Isen & Baron). Positive moods are associated with more positive evaluations of other people, products, ambiguous scenes, and facial expressions (George & Brief, 1994). Positive mood may also improve job satisfaction and alter task perceptions (Weiss, Nicholas, & Daus, 1993).

In terms of cognitions, positive affect influenced the recall of certain types of information (Brief, Butcher, & Roberson, 1993; Isen & Baron, 1991). Positive affect also improved the efficiency of decision-making by simplifying complex tasks through the use of heuristics, increasing holistic thinking, and increasing confidence in decisions so that unnecessary rechecking was minimized. Creativity and problem solving are also improved with increased positive affect (Pekrun & Frese, 1992, pp. 167-169).

In an organizational context, recent research on positive affect shows that it influences performance appraisals, interviews, and prosocial organizational behaviors (Isen & Baron, 1991, pp. 24-39). Positive affect has been also found to be effective in reducing anger and hostility, and associated aggressive behaviors, by reducing the intensity and duration of conflicts (Isen & Baron, p. 25-27). Isen and Baron suggest that positive moods can offset negative responses to excessive work stress, which can adversely affect health and job performance and ultimately lead to emotional "burn-out."⁶

There is a long history of investigating job satisfaction and its relationship to job performance and other outcomes such as turnover. Brayfield and Crockett (1955), Athanasiou (1969), and Locke (1976) provide good early reviews. Air Force interest in job satisfaction and its relation to performance and turnover dates back at least to the mid-1970s (Tuttle & Hazel, 1974; Gould, 1976; Watson & Zumbro, 1977). The evidence of a relationship is not as strong as investigators originally thought and satisfied employees do not necessarily perform better than their dissatisfied counterparts. For instance, dissatisfied persons could still perform quite well due to strong internalized work motivation or extrinsic pay incentives for superior performance. Likewise, a very satisfied individual may leave to take an even better job.

As Locke (1976) and Landy (1978) stated several years ago, job satisfaction (or dissatisfaction) can be conceived as an emotional state resulting from a person's experiences in the work environment. Emphasizing the emotional nature of job satisfaction, Landy applied the opponent-process theory of motivation postulated by Solomon and Corbit (1974) to job satisfaction. According to this theory, a two phase process underlies the emotional experience of job satisfaction: a excitatory, primary-process phase and an inhibitory, opponent-process phase to keep the excitation within normal, acceptable levels, eventually bringing one's emotional state back to "hedonic neutrality." This suggests that satisfaction will change over time even if the stimulus environment remains rather constant.

Although Locke (1976) and Landy (1978) characterized job satisfaction as an emotional state, what are more recent ideas about the connection between emotion and satisfaction? Job satisfaction may encompass more than emotion. It is now generally treated as an attitude or evaluative judgment, not as an emotion (Pekrun & Frese, 1992, pp. 155-156; Weiss, et al., 1993). But one of the most influential theories of job satisfaction, the Herzberg two-factor theory, tried to link emotion to job performance by investigating what made workers "feel good or bad" on their jobs (Pekrun & Frese, 1992). Given that satisfaction is not a consistently good predictor of performance or other outcomes, perhaps the more specific construct, emotion, with its clearer behavioral components, may prove to be a better predictor.

"Fun" at work has been investigated by Abramis (1987), but little other research has been conducted. Abramis' construct of "fun" includes the notion of creativity at work. Creativity and work enjoyment also relate to "flow" (Csikszentmihalyi, 1975, pp. 35-48; Csikszentmihalyi, 1990,

pp. 143-163). Flow is the "holistic sensation that people feel when they act with total involvement. One may experience flow in any activity, even in some activities that seem least designed to give enjoyment--on the battlefield, on a factory assembly line, or in a concentration camp" (Csikszentmihalyi, 1975, p. 36). Csikszentmihalyi (1975) emphasizes that intrinsic rewards (autotelic experience), play, and creativity are hallmarks of experiences of flow.

Consistent with the position that negative emotions can be functional and positive emotions can be dysfunctional, negative outcomes are also possible from positive mood. Research has shown that people in positive moods will usually try to maintain those moods. To maintain a positive emotion individuals may avoid engaging in behaviors that are unpleasant or that would otherwise threaten the positive mood. This could include avoiding unpleasant job tasks and problems (George & Brief, 1994; Isen & Baron, 1991, pp. 11-15).

Anger and Negative Affect

Negative affect has received much research attention lately. But the effect of negative affect on job performance was described over sixty years ago in a case study of railroad employees in which one employee's productivity dropped five percent when in a negative emotional state characterized by anger, disgust, sadness and worry (Hersey, 1932, cited in George & Brief, 1994). In this context, negative affectivity is synonymous with negative emotions, but negative affect can also encompass negative moods or negative personality traits as well (George & Brief, 1994).⁷ Rather than inventory the negative emotions and related research, this report focuses on key negative work-related emotions: anger, shame and guilt.

Anger has been studied frequently, no doubt because it is one of the most proscribed emotions in organizations, and simultaneously one of the most commonly felt emotions. Despite all of the research, there is considerable ambiguity about what it even means to be angry. When a person says he or she feels anger, this could mean they are feeling "mad, hostile, frustrated, hateful, nauseated, anxious, excited, or jealous--all distinctions a listener or observer may or may not readily grasp" (Van Maanen & Kunda, 1989, p. 53).

Self-reported felt anger has been found to have both positive and negative effects on performance. Uncontrolled anger reduces task performance and the escalation of anger may lead to excessively aggressive actions (Berkowitz, 1970; Edmunds & Kendrick, 1980; Kaplan, 1975; Novaco, 1975). Novaco notes that both destructive communication patterns and impulsive acts are typically associated with uncontrolled expressions of anger. Other research has found that a high level of anger arousal is correlated with high aggression and high hostility, a low need for social approval and high dogmatism ratings (Conn & Crowne, 1964; Edmunds, 1976; Heyman, 1977; Novaco, 1975). Negative affect has been found to decrease superficial cognitive processing of social information, perhaps by interfering with attention and other cognitive processes (Baron, Inman, Kao, & Logan, 1992).

The positive value of anger is seldom discussed, yet it is a significant motivator. Anger mobilizes the physiological and psychological responses that protect a person against threats (Novaco, 1975; Plutchik, 1989, pp. 5-6; Rothenberg, 1971). It can create a sense of personal control and decrease feelings of vulnerability. If constructively expressed, anger can increase intimacy and communication (Novaco, 1975), and restore mutual empathy (Biaggio, 1980; Holt, 1970). Anger improves performance in competitive sports like basketball (Pekrun & Frese, 1992, p. 175). In certain circumstances, it can increase one's effort to perform (Bandura & Cervone, 1983).

Expressions of anger are often the primary means by which people are influenced by others' anger. Without some display of anger, people may be unaware of another person's anger. While the expression of anger may not be the critical issue for the person feeling the anger, it may well be the critical issue with respect to other people. For example, in service organizations, displaying anger is likely to interfere with customer service. Thus, airlines restrict the expression of anger by flight crews (Hochschild, 1983).

In this context, controlling anger is defined to be one aspect of job performance because of the direct impact anger has on customer service. The display of anger is one example of emotionality that is rigidly proscribed to create a specific impression, and thus the display rules are critical to job performance. Similarly, sadness displays are also proscribed as contrary to the desired image of happy, friendly service employees.

On the other hand, in most jobs not involving direct customer contact, the display of anger or other negative emotions is constrained to improve or perpetuate the climate and culture of the organization (Van Maanen & Kunda, 1989), and perhaps to minimize deleterious effects on co-workers' performance of their jobs.⁸ For example, co-workers may be distracted by yelling in an office, and yelling may also prevent the angry worker from doing job-related tasks.

However, the situation moderates the effect of displays of anger at work. Workers may ignore some displays of anger on shop floors that would be disruptive in offices. People at sporting events often express and tolerate anger as part of the usual state of affairs. An employee expressing the common anger of the workers could be vicariously motivating to other workers, a type of "voice versus exit" phenomenon. In short, the display of anger is not necessarily destructive nor constructive. The intensity of the anger displayed and the situation determine the effect of displays, so no simple prohibition on display of anger is likely to be appropriate in all organizations.

The typical organization's concern about how anger is expressed may be a case of "not seeing the forest for the trees." Anger motivates many job-related behaviors that are not displays of anger. For instance, a person could be upset that his or her work is not sufficiently appreciated and work harder to make sure it is flawless. Anger and concern about the plight of the poor may

motivate a novelist or social scientist to write a prize-winning book. In fact, the motivating feature of anger may be one of its most important dimensions because it initiates, directs and sustains behaviors critical to work and performance.

To complicate the issue further, research has discovered that inhibiting the expression of anger can have unintended dysfunctional consequences. Psychosomatic symptoms may develop in people who chronically suppress anger. Cognitive efficiency can be reduced if anger is suppressed (King & Emmons, 1990). Conceivably, some workplace violence may be the result of overcontrolling the employees' emotional displays. Nevertheless, expressing one's anger will likely continue to be proscribed in most organizations. Thus, a solution may be to select people who feel little anger and who are not prone to express it, or to train people in anger control (Novaco, 1975). However, this may deprive organizations of people with a great capacity to contribute.

Shame and guilt have been theorized to affect the development of adaptive and maladaptive interpersonal and intrapersonal processes (Tangney, 1990). Guilt and shame are conceived of in many different ways, but a general distinction is that guilt is a negative self-evaluation that is specific to an event. On the other hand, shame is a more pervasive negative self-evaluation, i.e., the person is bad or worthless. Research shows that moderate levels of both shame and guilt are healthy and lead to adaptive responses, such as inducing altruistic behaviors and constraining aggressive, antisocial impulses. Extreme levels at either end of the bipolar dimensions of shame and guilt create dysfunctional responses. For example, low levels of shame and guilt are linked to sociopathic and antisocial behaviors. Conversely, exaggerated feelings of guilt and shame can cause depression, low self-concept, social withdrawal, and obsessive reactions (Tangney, 1990). Tangney, Wagner, Fletcher, and Gramzow (1992) found that shame-proneness was correlated with anger arousal, suspiciousness, resentment, irritability, a tendency to blame others for negative events, and indirect (but not direct) expressions of hostility. On the other hand, "shame free" guilt was negatively related to the tendency to blame others and some aspects of anger, hostility and resentment.

Responses to organizational demands may be moderated by individual differences in shame and guilt. While intentionally inducing guilt or shame is a questionable practice, nevertheless, either quite possibly can be triggered by job demands or management practices. Once triggered, the issues become: (a) is shame or guilt triggered, and (b) how does the employee respond to the shame or guilt? Withdrawing physically or psychologically can affect work outcomes, as can aggressive, defensive responses. Work may not get done due to withdrawal, colleagues may be offended by aggressive acts, and incumbents may not be able to solve problems well when they are defensive.

Job Demands and Individual Differences

Jobs likely differ with respect to what emotions are triggered by the job and what emotions can be displayed. Pekrun and Frese (1992) developed a theoretical model for predicting what emotions are likely to be triggered by different tasks and facets of work. They theorized that all work-related emotions could be divided into (a) job-related emotions pertaining to the job as a whole, (b) task-related emotions pertaining only to specific tasks, and (c) non-task related emotions pertaining to the social aspects of work in general.

The task facets of work that Pekrun and Frese (1992) proposed as the dimensions for analyzing jobs are: importance of task performed, identity of output (makes an identifiable piece of work), complexity of individual tasks and overall job, task-intrinsic and task-extrinsic barriers that create demands, causal agency and control of task events and job, and accomplishments and outcomes of work (including feedback). The "social" facets of work to be analyzed are type of organizational hierarchy, the type of reward allocation structure (competitive, cooperative, or individual) and its fairness in administration, social support or hindrance from co-workers and management, social contact and communication among workers, social value of work content and outcomes (Pekrun & Frese, pp. 179-184).

Pekrun and Frese (1992, pp. 184-191) then classified various positive and negative emotions as being triggered by these broad work dimensions, i.e., task and social dimensions. The task-related emotions triggered are enjoyment and boredom, hope and anxiety, anticipation and hopelessness, relief, outcome-related joy and sadness, pride and disappointment (or shame or guilt). The social-related emotions triggered (in pairs of opposite emotions) are gratitude and anger, empathy and jealousy or envy, admiration and contempt, sympathy (or love) and antipathy (or hate).⁹

O'Conner, Eulberg, Peters and Watson (1984) demonstrated a strong relationship between situational constraints (i.e., work conditions which hinder performance) and affective reactions. High levels of constraints were consistently associated with high frustration among Air Force enlisted personnel and reduced satisfaction with various facets of their work environment. There were, however, variations across occupations with fire protection, medical and materiel facilities specialists experiencing the most pronounced affective reactions.

Wallbott and Scherer's (1989, pp. 71-77) research on what situations elicit different emotions was not focused on work settings per se, but is instructive. Studying students from around the world, they found that certain types of situations seem to trigger certain types of emotions. Joy is usually triggered by personal relationships and successfully achieving something. Not unexpectedly, personal relationships also were the most frequent elicitor of anger. But importantly, anger was often triggered by the feeling of "being treated unjustly." Fear was often caused by encountering real or imagined dangerous situations (Wallbott & Scherer, pp. 72-73).

Summary

The review of existing research and literature on emotions, particularly the research dealing with organizational issues, suggests several major themes. First, emotions are indeed important ingredients of organizational life and displayed emotions influence a variety of work behaviors and organizational outcomes. Second, there are differences among individuals vis-a-vis the type, intensity, and duration of emotion displayed. Third, there are organizational, occupational, and job factors that influence, regulate, and possibly mediate the display of emotions and whether such displays might translate into effective or ineffective job performance.

Model of Emotionality and Work

Based on the above literature review, a number of potential models could be postulated concerning how emotional displays relate to job behavior and job performance. The authors' ideas concerning a possible model are shown graphically in Figure 1. In it, several classes of variables involving the relationships between emotion, job behaviors, and job performance are outlined. Note that this is an initial model which is probably incomplete. After presenting the model, subsequent discussion involves the variable classes and their components.

Stimulus Environment

The first piece in this model has to do with the kinds of factors that can "trigger" emotions. While the authors will not dwell on this part of the model because of the large and potentially infinite number of stimulus events that can produce emotional reactions in workplace settings, these involve events taking place in the immediate and external work environment imposed by co-workers, the physical environment, emergency situations, job and task demands, etc. Other life events could also be a part of the stimulus environment. Much of the "stress" literature develops this linkage in that stressful environments produce emotional reactions. Cox (1978) identified many emotions associated with stress, including anxiety, aggression, apathy, boredom, depression, and fatigue.¹⁰

Internal states (memories, attitudes, perceptions etc.) may also be stimulus situations that can trigger emotions. However, authors wish to deal primarily with external stimuli here.

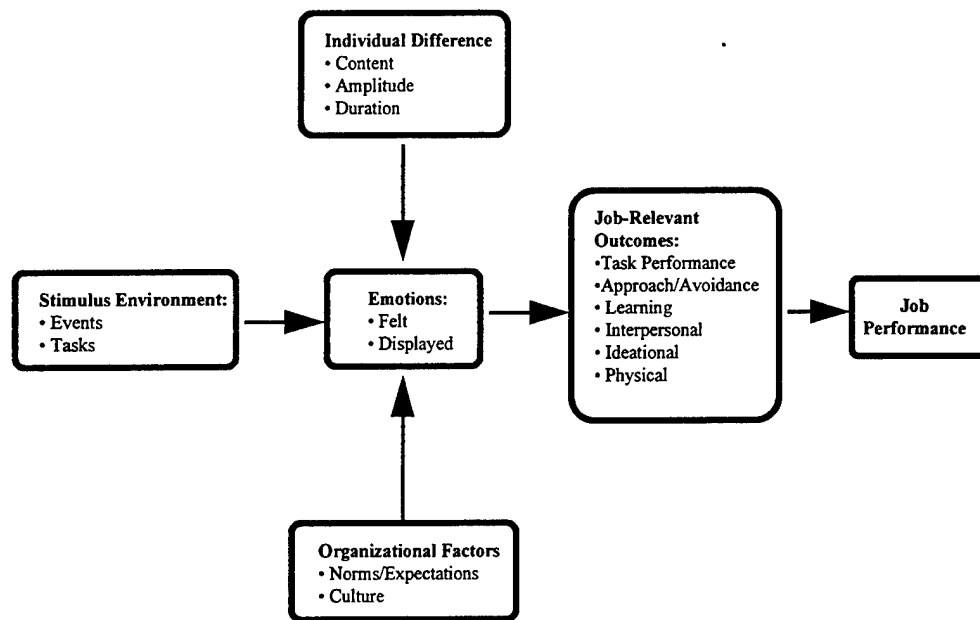


Figure 1. Model of Emotionality and Work

Emotions

As outlined above, emotions may be experienced or felt, and/or displayed to others through behaviors such as gestures, vocalization, looks, etc. Not all felt emotions will be displayed and not all displayed emotions will actually be experienced (see Displayed Versus Felt Emotions on page 7).

Individual Differences in Emotionality

Central to the proposed model is the notion that people vary in their predispositions to experience emotions and in their behavioral expression of those emotions. While the authors previously defined emotions as responses to specific stimuli and environments, they believe individuals form stable and consistent patterns of emotional responding across stimuli and environments. In this way, consistent patterns of emotional response may help to define one's personality (see Emotions, Mood and Personality on page 5). For example, a person may consistently become angry instead of sad in a variety of situations.

There are several research streams that support the notion of individual differences in emotionality. Research suggests that individuals differ in their predisposition to display emotions. Rafaeli and Sutton (1989) focus on three characteristics as particularly critical to display of emotions. First, gender is likely to differentiate people's emotional expressiveness: women are more likely than men to display warmth and liking in transactions, perhaps due to socialization and self-perceptions. Second, Rafaeli and Sutton report that individual differences in self-monitoring

(Snyder, 1987) moderate the display of emotions. High self-monitors are better able to regulate their emotional displays. In theory, high self-monitors' attention to situational cues about displaying emotion could be the critical aspect, or perhaps high self-monitors are more practiced in displaying situationally demanded emotions.¹¹ The third individual difference of interest to Rafaeli and Sutton is called "emotional stamina." This is defined as the ability to display desired emotions for a long time, such as flight attendants consistently being pleasant during a long flight.

The work by Kring, Smith, and Neale (1994) and Penner, Shiffman, Paty, and Fritzsche (1994) indicate clear individual differences in emotionality. Kring et al. (1994) details the development of a 17-item Emotional Expressivity Scale (EES) that measures the degree to which people outwardly display their emotions. Reliability studies show the EES to be an internally consistent and stable individual differences measure.

In addition to individual differences in predispositions to feel certain emotions in specific situations, research indicates that there are stable individual differences in mood variability across people. In other words, variability in mood across situations and time is a relatively stable individual difference that is analogous to a "trait," and thus, is a legitimate variable for study (Penner et al., 1994). While intraperson variability in mood has long been acknowledged, the issue has been whether this variability is a function of the situation or stable personal dispositions. Penner et al. found that across situations during a two week period, people's mood variability remained fairly constant on nine different measured moods: bored, calm, delighted, frustrated, happy, miserable, sad, tense, and tired.

Accordingly, Penner et al. (1994) noted that when trying to predict emotions (moods) or emotionally driven behaviors, individual variability should be considered in addition to other person and situation variables. Situation may be a poor predictor of behaviors if moods do not vary across situations. Conversely, highly variable people will not be easy to predict given prior mood states or predispositions towards certain moods because their intensity may change so dramatically.

Research associated with shame and guilt suggest that both are experienced by most people, but the degree and frequency is hypothesized to vary across individuals. Thus, even though situations differentially trigger the emotions, individuals' predispositions to experience guilt and shame bias the likelihood that in any given situation the person will feel either guilt or shame (Tangney, 1990).

From a theoretical perspective, the authors believe that individuals may be differentiated via emotionality in terms of the following dimensions:

1. Emotional Content. Emotional content refers to the type of emotion felt and/or displayed. The authors suggest that individuals may choose from among an array of emotions to the same stimulus configuration. For example, in a context of failing on an important job task, some

individuals may become angry and others may become sad. Thus, there are individual differences in the preferred form or type of emotion expressed across a number of different stimulus situations.

2. Intensity and Amplitude of Emotion. This dimension is the subjective level of arousal associated with the emotion, both felt and displayed. The authors suggest that individuals may be differentiated by the intensity of the emotion experienced in a given stimulus situation (see Plutchik, 1989, p. 7). For example, on experiencing failure on a task, some individuals may become intensely angry, while others may experience only relatively mild anger or irritation.

3. Temporal Aspects of Emotion. This dimension refers to the time elements of emotionality. There are distinct elements subsumed under this dimension, such as latency (how long it takes to feel the emotion after the stimulus), duration (how long the emotion is felt and/or displayed), and the rate of growth and decay of the emotional intensity. Some people may experience an emotion over a substantial time (e.g., 4-5 hours). Others encountering the same situation may have an emotional experience lasting only a short time (e.g., 10 minutes). Rafaeli and Sutton (1989) discuss what they call "emotional stamina," or the ability to display emotions over long periods of time. This is the duration element in the context of displayed emotions.¹²

A graphic depiction of individual differences along these dimensions is shown in Figure 2. Two individuals are responding to the same or similar stimuli over time. They are shown to differ in terms of amplitude and duration in their experience of one emotion (e.g., anger). Whether just displayed or felt, Person A and Person B both experienced heightened anger on two occasions during the time period involved. However, Person A experienced more anger and his or her second incidence of heightened arousal was later and tapered off less quickly.

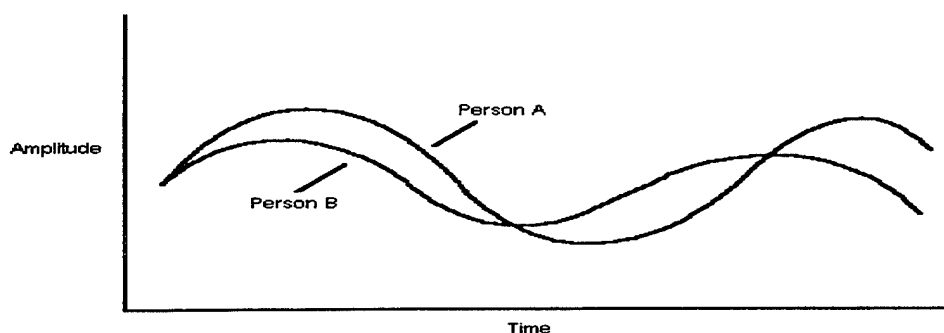


Figure 2. Model of Individual Difference in Emotions

Organizational Factors

Based on the literature reviewed earlier, the authors believe there are a number of organizational variables influencing whether specific stimulus events will trigger emotional reactions in work settings. Such variables as the norms and culture of the organization influence whether individuals display and/or feel certain emotions. In Rafaeli and Sutton's (1989, pp. 4-16) model of displayed emotions, social and organizational norms interact with individual differences in emotionality and values to determine what emotions are displayed in what settings.¹³ Occupational groups within an organization are found to have different norms for emotional displays (Lytle, 1992). Thus, in addition to organizational demands for emotional displays, occupational groups socialize members to meet that group's emotional demands. This is consistent with Rafaeli and Sutton's (pp. 4-15) model where social norms influence emotional displays.

Congruence or "Fit"

Consistent with other views of the congruence between environmental and personal factors, the authors believe it is useful to view the relative "fit" between the constraints and/or the demands of emotionality imposed by the organization and the emotional style of the individuals. Emotional style refers to people's propensity to feel certain emotions at certain levels of intensity for certain lengths of time, as well as their individual preferences for displaying emotions, i.e., do they prefer to display or suppress them. The authors suggest that when individuals' emotional displays are incongruent with those expected and/or tolerated in the organization, job behaviors and job performance could be impacted. There are several possible scenarios that might be involved here. Two examples follow:

1. Broad bands. The organization could require that individuals stay within certain boundaries and consider excessive emotionality dysfunctional. That is, emotional displays that exceed or are below the expected boundaries may result in behaviors and performance considered to be ineffective.

2. Narrow corridors. The organization could require a relatively high or low level of emotionality that must remain constant over time. Individuals whose levels of emotionality stray outside these "corridors" might also be considered ineffective.

This notion is graphically portrayed in Figure 3, which is Figure 2 over-laid with hypothetical organizational threshold levels for displayed emotions. The thresholds are a function of organizational norms, expectations, and job demands.

There are several implications of this congruency concept: (a) organizations may wish to select individuals whose emotional displays meet the various boundary levels demanded, (b)

organizations may revise (raise or lower) their expectations and norms regarding acceptable types of emotional displays and their amplitudes, and (c) individuals may suppress emotions falling outside these boundaries, or if unable to self-regulate, may suffer organizational consequences.

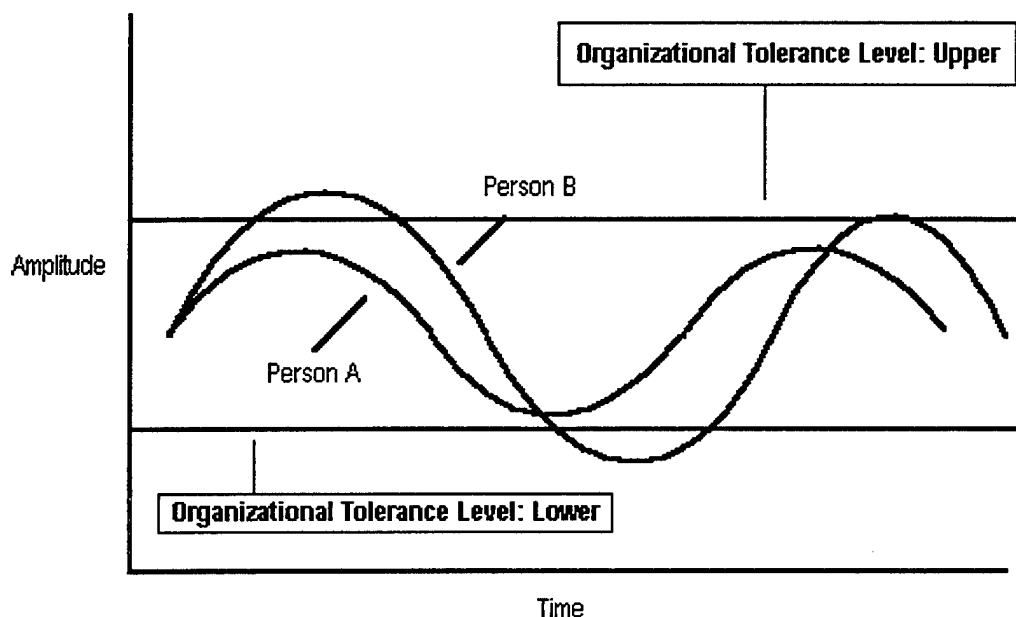


Figure 3. Organizational Boundaries on Emotions

It should be noted that while creating homogeneity in terms of felt and displayed emotions may increase predictability, there may also be a cost in terms of performance. Not only will the possibility of dysfunctional ambivalence increase, but employees may feel controlled and stifled (Van Maanen & Kunda, 1989). This could result in withdrawal, sabotage, and loss of motivation. On the other hand, extreme variations in emotional displays may interfere with organizational efforts to produce standardized customer service, or it may interfere with other employees' work. Whether an organization should hire for diversity or similarity is a judgment that will not be addressed in this study, but should be carefully considered.

Emotions Linked to Job Relevant Outcomes

The authors hypothesize that a number of potential job relevant outcomes are influenced by displayed and felt emotions, as follows:

1. Behaviors on task. This involves behaviors having to do with performance of specific task and duty functions. Task performance may be influenced by emotional responses through

increased effort on task, interference with task performance, neglect of task performance, and redirection of effort.

2. Organizational-level approach/avoidance behaviors. Avoidance or withdrawal behaviors at this level of analysis would be absenteeism, quitting, tardiness, etc. Approach behaviors could be reflected in organizational citizenship behaviors, i.e., the prosocial behaviors not demanded by the task itself. These behaviors could take many forms, such as encouraging others to respond more positively, working later, or demanding higher quality in one's work.

3. Learning processes. Learning processes refer to behaviors having to do with absorbing and learning new knowledge, skills, and physical and psychomotor responses. Emotions may facilitate or inhibit the learning processes by affecting cognitive processing. Research in related areas shows cognitive processes are influenced by emotionality. For example, positive affect seemed to improve some complex cognitive processing, such as decision-making (Isen & Baron, 1989) and negative emotions seemed to interfere with social cognitive processes (Baron, et al., 1992).

4. Interpersonal relationships. Behaviors associated with relating to others (e.g., co-workers, customers, superiors, subordinates) should be influenced by emotionality. These other people may be affected by displayed emotions in many ways. Depending on their behavioral and emotional reactions, their own job performance may be affected, their relationship with the person displaying emotion will be influenced, and the teamwork in a group could be altered. An example of the impact of emotions on interpersonal relations is the impact of charismatic leaders on their followers. It appears that one reason such leaders can be effective is their ability to form strong emotional bonds with their followers, in part by having a special sensitivity to their needs (Bass, 1985; Conger & Kanungo, 1988; Conger, 1989). As Bass (1985) notes, there is an intense emotional component to charismatic leadership. The emotional attachments such leaders elicit from others go beyond affection, admiration, or esteem to feelings of devotion, awe and reverence. Charismatic leaders also use emotion in other ways. As Conger (1989) explains, they help empower others by stirring up positive emotional arousal, for instance through inspirational, confidence-building seminars or conventions.

5. Ideation and creativity. This refers to, among other things, generating new ideas and thoughts, synthesizing ideas, and creating new relationships among objects. Emotional displays may affect creativity in unknown ways. It may be that individuals who feel/display certain emotions such as joy or happiness are also more likely to be creative. Perhaps work roles that permit wide ranges of emotions are those that also encourage the facile expression of ideas (e.g., the creative genius who needs emotionally unrestricted work environments). As Watson (1993) reports, innovative organizations in which creativity flourishes are often characterized by a pervasive sense of pride. They are places where people feel bonded in emotional or value-laden ways to their organizations.

6. Physical and psychomotor responses. On-task physical responses such as climbing, running, lifting, and stamina might be enhanced or degraded by emotionality depending on the type of arousal associated with the emotion. Negative and positive emotions can be high or low in their degree of arousal. Logically, and almost by definition, high arousal will increase physical activity. Whether high arousal is good depends on the task, because excessive arousal may interfere with fine psychomotor responses or otherwise degrade coordination.

Up to this point little has been said about how emotions can influence these posited outcomes. That is, how is it that emotional displays and experiences come to influence the individual and others in terms of organization relevant variables? The authors posit several mechanisms by which job relevant behavior may be affected as a result of emotional reactions in job settings:

1. Cognitive processes. Emotions can operate through changes in cognitive processing, i.e., emotional reactions may trigger interruptions in cognitive processes. Stress reactions can produce reduced cognitive functioning, and excessive anxiety can produce reduced functioning on highly complex tasks. (Gibson, Ivancevich, & Donnelly, 1988).

2. Motivational processes. Emotions can influence behavior via different motivational processes of activation, amplitude of effort, and the duration of effort. Emotions signal where attention needs to be directed, at which point motivational processes intercede to determine the direction and level of effort. George and Brief (1994) refer to this as "motivational attention," or the allocation of cognitive resources to achieve a goal (or "possible self") in light of the expected consequences for achieving this goal. Feelings may signal a new goal or a deviation from an existing goal. In other words, emotions may interrupt existing patterns of behavior, activate new efforts towards new goals, or redirect already initiated effort through a feedback mechanism (George & Brief).

3. Affective processes. Emotions can change behaviors through affective processes. Some job components may become more or less attractive, the liking or disliking of various job facets may be changed, etc.

4. Physiological arousal. Emotions can change behaviors through physiological arousal. For example, emotional reactions may galvanize physical activities and energy to much higher levels (e.g., Marines charging enemy forces), or decrease physiological arousal (e.g., sadness over a loss).

Relationship to Perceived or Rated Job Performance

The model also indicates that decision-makers will observe and evaluate individuals' displayed emotionality and the resulting behavioral outcomes of such emotional displays. Eventually, some judgment will be made of the person's overall job performance. The authors posit that emotional displays and the resulting effect of such displays influence judgments about such performance. This proposition is buttressed by literature on ingratiating behaviors indicating that employee ratings are favorably influenced by the supervisor's or rater's positive feelings about the person. These feelings are likely to be strongly influenced by positive displayed emotions, i.e., ingratiating behaviors and other impression management behaviors (Isen & Baron, 1991).

Implications of the Model

The model presented here is intentionally a somewhat simplistic one. The authors posit that there are individual differences in terms of displayed/felt emotion, that there are a variety of organizational factors which potentially mediate the expression of emotion, and that emotion has potential linkages to job relevant behaviors and job performance. If a moderately accurate reflection of the dynamics involved in emotionality has been set forth here, what is necessary in terms of testing such models? Perhaps more importantly, what is needed in terms of tapping individual differences in emotionality for predictive purposes? The first necessary component is to obtain reliable and valid measures of emotionality distinguishing among individuals regarding the content, amplitude, and duration of emotions they display to different stimuli. The second component involves learning more about and identifying the emotional display demands imposed by various occupations and organizations. These two components are discussed below.

Measurement of Emotionality

In examining measures of emotions or emotionality, a number of issues need to be considered. Besides the obvious concern for reliable and valid measures, there are questions such as whether the measures are unduly intrusive (i.e., may offend or potentially harm job candidates), too cumbersome and expensive or time consuming to obtain, subject to deception or social desirability influences, etc.

There are four basic methods for studying emotions and emotionality: 1) measuring physiological changes in the autonomic nervous system or elsewhere, 2) inducing emotional responses in laboratory or field settings, 3) observing emotionality in naturalistic settings in which it is likely to occur, and 4) in surveys or interviews asking people to describe past emotional situations from memory, or to provide their attitudes toward and reactions to emotional displays. Sometimes, these methods combine. For instance, you could interview people about their recall of emotional events and also observe direct expression of emotion. Each of these methods is discussed below.

Physiological Measurement

Assessing physiological changes associated with emotions has not been particularly fruitful or practical for at least three reasons. First, the issue of whether specific physiological changes accompany specific emotions has been debated for over a century without resolution (Rime, Philippot, & Cisamolo, 1990; Wallbott & Scherer, 1989). Second, the use of physiological methods is expensive and cumbersome. Third, use of such measures alone would not tap the cognitive aspects of emotion (Schachter & Singer, 1962).

Induction

Inducing emotions in the laboratory or field is difficult and fraught with problems, not the least of which are ethical issues. For example, just as on some television talk shows, emotional reactions may surface that are extremely distressing to participants, without adequate counseling or debriefing at the end of the session. Thus, the people involved could be harmed. Also, inducing strong emotions that are analogous to ones occurring naturally is difficult, and weak inductions may not trigger the desired emotions. Additionally, generalizing from research using weak emotions may be uninformative and misleading. For example, strong anger is unlikely to be functionally equivalent to mild irritation or frustration (Wallbott & Scherer, 1989).¹⁴

Induction can be combined with naturalistic observation through interviews. For instance, interview participants may be interviewed, not about their recall of emotions, but about topics about which there is likely to be disagreement and little expectation of reaching consensus. Focus groups (Krueger, 1988; Watson 1997a) are an example. Here people provide their reaction to products, services or other topics and react to the thoughts and feelings of others. They can be quite emotional. Individual interviews can also be used to study emotion without directly asking for the recall of emotional situations. For example, people can be asked about controversial topics, or stress can be built into the interview. However, as Watson stresses, care should be taken not to harm participants, to ensure voluntary participation, and to protect the confidentiality of individual responses.

Simulations are another method to induce emotions in situations that resemble real world events. As was done in early assessment centers (Thorton & Byham, 1982), emotional reactions can be encouraged to surface by intentionally creating stressful scenarios. For instance persons could be asked to play the part of a bank teller and an irate customer and the resulting encounter could be observed or recorded. Again, care would need to be taken not to harm participants. The fact that this is role-play could be stressed, and participants could be instructed not to take the events personally.

Naturalistic Observation

Naturalistic observation may be impractical in many situations because of the need to observe people all or most of the time for extended periods to obtain measurements before, during and after emotional incidents. However, there are some situations in which naturalistic observation may be a method of choice, providing rich, accurate information. For instance, like investigative reporters, scientists may want to observe first hand (or through video) natural events in which intense emotions are likely to be expressed. They may want to observe soldiers on a battlefield, demonstrators at a political convention, or spectators at a sports event or rock concert.

Self Report Using Surveys or Interviews

Surveys and interviews are good self-report means for studying emotions since respondents can be asked to recall emotional events or to provide their attitudes and reactions to them. Recall of past emotions from memory may be the most feasible method of measuring emotions at present. However, the recall of emotions has problems since memories may be suppressed or distorted. Since surveys and interviews are methodologically distinct, they are discussed separately below.

Surveys. Surveys (also called questionnaires) provide the advantage of allowing researchers to gain large amounts of quantifiable data, using objective response formats which can be easily analyzed using descriptive and inferential statistics. They can also be easily distributed to respondents who are geographically dispersed. They can be administered anonymously while with interviews, participants are usually known to the interviewer and only confidentiality can be pledged. However, surveys typically don't provide personal contact and the opportunity to observe responses. They also have other flaws. For a more extensive discussion of the advantages and disadvantages of surveys see Watson (1997b). As Wallbott and Scherer, (1989, pp. 63-64) point out, a "healthy skepticism" about questionnaires is warranted. But to throw them out is inappropriate for research that depends on information about subjective experiences and attitudes. Surveys for studying emotion often take the form of adjective checklists or Likert scales of intensity of emotion. As can be seen in the Appendix, the questionnaires and response scales used are rather simple. Occasionally the questionnaires are open ended, requesting information about recently experienced emotion. For information on how to construct surveys see Watson (1997b) or Salant and Dillman (1994).

Interviews. The use of interviews to induce and directly observe emotionality was described above. Interviews can also be used as an alternative or adjunct to surveys to measure the recall of and reaction to emotional events. Interviews have the advantage of personal interaction (interviewers and interviewees are usually face-to-face) and they allow people to phrase their responses in their words. They also provide an opportunity for development of rapport and trust, and if face-to-face, they allow interviewers to observe the emotional displays and other behaviors of those being interviewed. Like surveys, interviews have their disadvantages. For example, they are

usually best suited for small groups that are not geographically dispersed, they require skilled interviewers, and they do not provide data that are easily quantifiable for complex statistical analyses. For a more extensive discussion of the advantages and disadvantages of interviews, see Watson (1997a). For the recall of and reaction to emotions, they are not as good as surveys if large amounts of data in an objective format are needed for statistical analyses. However, if rich, detailed accounts of emotionality are desired, or if there is a need to reduce apprehension about the discussion of such events, interviews are preferable. Care would need to be taken not to harm respondents by having them discuss past emotional episodes, some of which may have been unpleasant. However, recalling such events may be helpful. As Bradburn and Sudman (1988, p. 202) report, interviews are often described by participants as therapeutic--places where they can talk about potentially painful events with a sympathetic listener. Of course, many emotional episodes are characterized by pleasure. For information on how to conduct interviews see Watson (1997a).

Issues concerning self-report methods. There are a number of issues associated with the use of self-report methods in assessing emotionality. Nonetheless, self-report measures such as surveys and interviews may be the most feasible means of studying emotional expression in organizations. Concerns regarding self-report methods are as follows:

1. Item, formatting and response set problems. While there are problems with item selection, response formatting (obscuring whether emotionality is bipolar, unipolar, or a mixture of both), and response-set bias, these can be largely corrected if the researchers are sensitive to these issues in advance (Lorr, 1989).

2. Self report may be the preferred method to measure emotionality. Wallbott and Scherer (1989) and Plutchik (1989) distinguish between emotionality and emotion, as do the present authors in their proposed model of emotionality (Figure 1). Emotionality is defined as a combination of responses or a syndrome. The subjective feeling called emotion is only one aspect of the complete emotional experience. For example, a specific emotional experience could consist of the following report: "I have just listened to someone insulting me, I feel my muscles tensing and a hot feeling around my head and neck region, I noticed that I am gesturing with a clenched fist and that I am gritting my teeth, I have to hold myself back from hitting this other person, and I know that I am feeling angry. At the same time I feel that I should control myself rather than get carried away with anger" (Wallbott & Scherer, p. 56). Note that most aspects of this experience could only be assessed through self-report, although it could also be complemented through observation. Objective measures like physiological changes and displayed behaviors would not only be potentially misleading because of constraints on displaying emotion, but highly incomplete as a description of how this person experienced the emotion. Even observation alone would be incomplete since it would lack the actor's narrative description of events. Self-report, perhaps sometimes complemented with other methods, appears to be the best method to assess emotions and emotionality.

3. Subjective evaluation may create the emotion. Objectively describing the situation or stimulus that evoked the emotional experience is also incomplete to understanding what the person experienced emotionally and how he or she evaluated the situation. The individual's subjective evaluation of the situation appears to create emotional reactions more than the stimulus itself. Based on this reasoning, Wallbott and Scherer (1989) argue that self-report techniques are the only way to measure and then create a profile of the relevant dimensions of emotionality.

4. Memories are usually of strong emotions. Most importantly, investigators gain access to the full range of an emotional experience and the memories are typically of strongly experienced emotions, otherwise they would have been forgotten (Wallbott & Scherer, 1989).

5. Attitudes and reactions can be expressed. Self report measures can tap more than just the recall of emotional events. Surveys and interviews also allow investigators to examine attitudes toward emotional expression and the reaction people have to the emotional behaviors of others.

6. A protective environment can be established. Especially with interviews, protective, supportive environments can be created where people feel comfortable discussing even highly personal or controversial issues. (Watson, 1997a).

Specific Measures of Emotionality

The authors reviewed the literature for measures of global and specific facets of emotionality. A number of such measures have been developed over the years, as outlined in the table below from Plutchik (1989). The most striking aspect of Table 2 is that some emotions occur on virtually every measure, e.g., anger, and others are unique to one measure, e.g., skepticism. Another feature worth noting is that the dimensions include characteristics that seem to be personality traits, not emotions. This highlights the confusion among the purportedly different constructs previously discussed.

Table 2. Measures of Emotion or Emotionality

Author and # of adjectives	Dimensions assessed
Borgatta (1961): 40 adjectives	Lonely (depressed); warm-hearted; tired; thoughtful; defiant (aggressive); startled (anxious)
Schachter and Singer (1962): 4 anchored 4 or 5-point scales	Angry, happy/good, physiological symptoms
Clyde (1963): 132 adjectives	Friendly; aggressive; clear thinking; sleepy; unhappy; dizzy
Zuckerman and Lubin (1965): 89 adjectives	Depression; hostility; anxiety
Plutchik (1966): 8 adjectives	Happy; agreeable; fearful; angry; interested; disgusted; sad; surprised
McNair, Lorr, and Droppleman (1971): 57 adjectives	Anger-hostility; depression-dejection; vigor-activity; fatigue-inertia; friendliness; confusion
Izard (1972): 30 adjectives	Interest; joy; surprise; distress; disgust; anger; shame; fear; contempt; guilt
Plutchik and Kellerman (1974): 66 adjectives	Sociable; trusting; dyscontrolled; timid; depressed; distrustful; controlled; aggressive
Curran and Cattell (1975): 96 adjectives	Anxiety; stress; depression; regression; fatigue; guilt; extroversion; arousal
Howarth (1977): 60 adjectives	Concentration; anxiety; anger; depression; potency; sleep; control; cooperation; optimism; skepticism
Lorr and McNair (1984): 72 adjectives	Composed-anxious; agreeable-hostile; elated-depressed; confident-unsure; energetic-tired; clearheaded-confused

Several measures may have practical utility for predicting job behavior and performance. Some promising measures are discussed below.

Emotional Profile Index (EPI)

Plutchik (1989) developed this index based on his idea that personality traits are combinations of two or more primary emotions. For example, shyness as a trait is a function of the fear emotion, whereas gloominess implies the emotion of sadness. Clinical psychologists defined what emotions were components of a large number of traits, and this list was ultimately reduced to twelve trait terms: adventurous, affectionate, brooding, cautious, gloomy, impulsive, obedient, quarrelsome, resentful, self-conscious, shy, and sociable. Specifically, the EPI is a forced-choice test where the person is asked to indicate which of two paired words is more personally descriptive. The choices are scored for the Plutchik's eight primary emotions, so the test simultaneously measures all eight emotions. Response bias is minimized because the choice is usually between two equally desirable or undesirable words. A separate measure of social desirability bias is also built into the measure.

The scoring of the EPI shows the person's scores on the eight primary emotions in terms of his or her deviation from norms for each specific emotion. Computing the deviation from population norms on each emotion creates individual profiles for each person on the eight primary emotions of the taxonomy. Plutchik (1989) contends that this instrumentation and resulting profiles of emotions can predict and identify some dysfunctional emotionality patterns. Plutchik and his

colleagues also theorized that specific ego defenses and coping styles are linked to specific emotions, and have developed two tests to assess these facets of emotionality.

In a related vein, Plutchik's (1989) model links specific ego defenses and coping styles to each primary emotion. For example, fear is associated with the ego defense of repression, and the coping mechanism of avoidance. Anger is associated with the ego defense of displacement and the coping style of substitution. Extreme emotions could lead to excessive coping mechanisms that could be dysfunctional at work. Specifically, the excessive use of the related ego defenses and coping styles of "repression-avoidance" and "displacement-substitution" could easily lead to counterproductive behaviors in the workplace, such as withdrawal and hostility respectively. The Life Style Index assesses preferred ego defenses and the Coping Scale assesses the preferred coping mechanism. Plutchik reports that both tests have successfully differentiated among groups of people on various dimensions, e.g., stress levels and criminality.

Plutchik's (1989) basic model can be extended to this proposed research context. A sensible extension of his model is to assume that people who are predisposed to perceive events in certain ways will be predisposed to feel and act in certain ways. The behavioral component is simply a joint function of individual differences in emotionality and coping styles. This suggests that using this model and instrumentation may be useful in assessing individual emotionality, which in turn would be matched to meet the emotional demands of a job.

Wallbott and Scherer Emotionality Questionnaire

In a series of cross-cultural studies, Wallbott and Scherer (1989) attempted to assess whether there are typical situations that consistently elicit the same emotional responses. They studied this by assessing the a) emotion-arousing situation (i.e., stimuli), b) person experiencing the emotion (i.e., individual differences in supplied emotionality), c) subjective characteristics of the emotional experience in terms of intensity and duration of feeling, d) verbal, expressive, and physiological reactions, and e) control and regulation of displays and feelings of the emotion (i.e., displayed emotion and perhaps coping styles). They found that situations could be classified and then used to predict emotional responses and associated behaviors, although there was some variability across cultures. The situational factors they used may be too broad for our purposes (e.g., relationships, news, achievement), but the concept might be adapted to this research.

Over time the questionnaire has contained both open-ended questions and Likert scales to assess the basic emotions of joy, sadness, fear, anger, disgust, shame and guilt. Respondents were asked to answer questions by recalling recent incidents that triggered each of the seven emotions. The samples consisted of about 2500 students, aged from 18-35, from all over Europe and other parts of the world (Wallbott & Scherer, 1989).

Ambivalence Over Emotional Expression Questionnaire (AEQ)

This inventory was developed to determine if incongruence or ambivalence exists in a person (King & Emmons, 1990). This instrument assesses an individual's "personal strivings," or what the person is characteristically trying to do, in terms of expressing emotions. People may strive to control their temper or be more assertive. Ambivalence over expressing emotions can take different forms, and the instrument attempts to assess the many different forms of ambivalence.

For example, wanting to express but not being able will cause ambivalence or conflict (inhibition), as can expressing but not wanting to express emotion, or expressing and then later regretting it (rumination). The items loaded primarily on two factors: One that could be called ambivalence over expressing positive emotions and the other ambivalence over expressing negative emotions, or possibly regret over expressing feelings of "entitlement" to something. Another instrument measuring ambivalence is the Raulin Intense Ambivalence Scale. The AEQ was found to be positively correlated ($r = .35$, $p < .01$) with the Raulin scale as expected (King & Emmons, 1990, citing Raulin, 1984).

Emotional Expressiveness Questionnaire (EEQ)

King and Emmons (1990) also created this instrument to assess an individual's actual expressiveness. High scores on the EEQ indicate a tendency to express emotions. Note that the EEQ differs from the Affective Communication Test because that instrument assesses only nonverbal behaviors or charisma, and may be more indicative of extroversion than expressiveness of positive and negative emotions (King & Emmons).

Three factors emerged from a factor analysis of the EEQ. Fourteen percent of the variance was accounted for by a factor labeled expression of positive emotion (e.g., smiling, laughing, affection). Twelve percent was accounted for by a factor labeled expression of intimacy (e.g., loving, gratitude, apologizing). The third factor accounted for ten percent of the variance, and was labeled expression of negative emotion (e.g., anger and disappointment).

Self-Conscious Affect and Attribution Inventory (SCAAI)

Tangney (1990) developed this instrument to separately measure guilt and shame because of various assessment problems with other instruments. For example, Mosher's (1966) Forced-Choice Guilt Inventory is widely used, but does not distinguish between guilt and shame. Other measures purport to distinguish shame from guilt, but Tangney feels they are empirically weak in differentiating the constructs. The SCAAI's guilt and shame subscales correlated with different hostility and aggressive responses, as measured by other instruments.

Novaco Anger Inventory

Anger arousal can be assessed via this instrument (Novaco, 1975), which reports 80 potentially anger-producing incidents and has the respondents indicate on a five-point scale the degree of anger or provocation they would experience. Biaggio (1980) concludes this is a measure of awareness of anger and the ability to admit that anger exists.

Anger Self Report

Another measure of anger is the Anger Self-Report (Zelin, Adler, & Myerson, 1972). According to Biaggio (1980), this device has 64 items assessing past responses to anger producing situations and awareness of anger. Thus, this measure is more firmly rooted in behaviors than the Novaco Anger Inventory.

Summary

The measures described above are the tip of the iceberg. Dozens of other measures have also been used to assess emotions. Global measures of emotionality are rare because most measures are operationalizations of a specific theory, e.g., the Emotional Profile Index, or address only a subset of emotions, e.g., the Novaco Anger Inventory. The Emotional Profile Index is the most global emotionality instrument, assessing eight emotions, and is theoretically defensible. The complexity of the taxonomy, however, may limit its applied value. Perhaps this complexity can be reduced by adapting the instrument to include only job-related emotions.

Many measures of negative and positive affect also exist, and have the benefit of simplicity. These instruments were largely developed in the personality research domain, however, and often reflect dispositions, not emotions. However, as noted earlier (page 5), the distinction between personality traits and emotions is fuzzy, so these instruments may provide useful measurements.

The instruments addressing more specific emotions should have higher reliability than global measures because more items are used to assess each emotion. Their validity may also be higher because of increased reliability, better coverage of the domain, and better item construction. But, a battery of these specific tests could create testing problems due to the length. This could confound "emotional stamina" with other emotional traits.

The choice of instruments is probably an empirical matter depending on what emotions are considered job-related after conducting a job analysis. Right now, there is no a priori basis for choosing one test over another without this information. The tradeoffs between broad and narrow tests can be assessed better when the scope of the emotionality is determined empirically. On the other hand, Plutchik (1989) compared six different adjective-checklist measures of emotions and found that when measuring the same emotion, over 60% of the tests were significantly correlated

with each other over time and situation. Anger scales were very highly correlated, and to a lesser degree so were fear, joy, sadness, and disgust. This suggests that any of several measures would be sufficient to assess emotionality.

Measurement of Organizational Factors

The second measurement issue involves organizational, occupational, and job demands with regard to emotionality. While the authors have pieced together conceptually how factors may influence tolerance levels and expectations associated with different kinds and levels of emotional displays, there is very little literature concerning how to measure these job and occupational side components. The authors found only a few threads of related research, as follows:

1. The work reviewed earlier by Lytle (1992) is one of the few efforts to directly measure emotional display behaviors associated with four distinct occupational groups: nurses, doctors, laboratory technologists, and respiratory therapists. Data were gathered from over 200 incumbents across these four occupations. They were asked to respond to a 28-item scale and to indicate the frequency of directly observable emotional display behaviors, such as smiling, joking, crying, blushing, and yelling. They also asked subjects to subjectively interpret the associated observable emotional indicators, such as anxious, angry, sensitive, comforting, sad, guilty, sympathetic, and cold. Their results indicated that the four occupations could be significantly differentiated by these descriptors of emotional display.

2. An interesting effort to develop a method to describe specific affective behaviors associated with jobs and occupations was launched by Pucel, Jensrud, and Damme (1990). They argued that affective behaviors (feelings, attitudes, or habits) are indeed important in jobs and represent potential competencies necessary for effective job performance. For example, a general competency of "pleasant/friendly/cheerful" might be important in a job and represented behaviorally by smiling, greeting others, speaking favorably, encouraging others, etc. These researchers describe a job analytic technique to determine the affective requirements of jobs, using the job of a cosmetologist as an example. The methodology involved developing inventories of potential affective competencies and asking respondents to indicate the relative importance of such competencies (see Pucel, Jensrud, Damme, and Warner, 1992). While interesting, the affective behaviors involved were not particularly emotionally based; they included such behaviors as caring, showing respect, cooperating, etc. and were "lumped" into the generalized category of "affective behaviors." While this research demonstrates the potential of using job analytic methods for determining emotional demands and/or expectations associated with jobs, additional research will need to be conducted to provide a more complete picture.

3. It may be that other job analytic methods have future utility in assessing the emotional demands and/or requirements of jobs. The Position Analysis Questionnaire (PAQ) (see McCormick, Mecham, and Jeanneret, 1989), a well known computerized job analysis instrument

used to describe a large number of jobs across a number of job dimensions, has been shown to be significantly related to emotional symptoms. Based on several job samples, Staw and Riskind (1983) showed that the PAQ dimensional scores correlated with independently derived stress data on variables of anxiety/depression, dissatisfaction, and other stress associated variables (i.e., hypertension, suicides, etc.). It is conceivable that such instruments as the PAQ might be used to profile the "emotionality" associated with different jobs, but no work has yet appeared with this objective. However, PAQ dimensions have been shown to correlate with personality attribute requirements of jobs, specifically between occupations with high and low scores on the Myers-Briggs Type Indicator (McCormick, et al., p. 34).

Summary

Taking this research as a whole, it is probably fair to say that measures of emotions and emotionality are limited. More research needs to be conducted to refine existing measures, to develop new ones, and to gain a better understanding of emotional expression and its impact in organizations. Investigators need to learn more about a) the normative properties of organizations and jobs regarding emotional displays, b) what kinds of emotional displays are considered to be essential attributes of jobs and necessary requirements for incumbents, and c) the relative boundaries and tolerances of organizations, jobs, and occupations for particular emotional displays in terms of the types of emotions, their amplitude, and their duration.

Feasibility of Using Measures of Emotionality to Predict Job Performance

Based on this literature review and the initial model of emotionality presented in this report, the authors believe that assessing emotionality has utility in predicting future work behavior and job performance. This belief is based on the following considerations:

1. There is a multitude of research literature indicating that emotions are important facets of human life, and are commonly expressed in work settings.
2. There is sufficient information suggesting that stable individual differences among people in terms of their emotionality exist, and that such differences are not the same as mood or personality traits.
3. There is ample evidence indicating that emotional displays are both theoretically and empirically related to organizationally relevant outcomes. Because the literature and our model suggest that the effect of felt and/or displayed emotions may be moderated by organizational, occupational, and job factors, the authors believe that individual differences in emotionality can predict job behavior in organizational, occupational, and job contexts, both as main and interaction effects. That is, emotionality will have both main effects within relatively homogeneous organizational, occupational, and job contexts, and interaction effects with these same variables in

heterogeneous situations. There is insufficient information available (either theoretically or empirically) to develop precise, directional predictions between emotionality and organizationally relevant outcomes.

4. There are currently available measurement instruments and techniques which are useful for prediction purposes. However, the refinement of existing measures and the development of new ones appears to be warranted.

Suggested Avenues for Future Research

The authors believe it is indeed feasible to investigate the potential usefulness of measures of emotionality as predictors of future job behaviors and performance in organizations. They note that this review unearthed no literature examining measures of emotionality as predictors of traditional criterion measures in organizations. Thus, despite the important role of emotions in psychology in general and the understanding that emotions influence organizational behavior and outcomes, no one has investigated the predictive utility of such measures in work settings. Therefore, the authors suggest that valuable information could be obtained by undertaking the following research:

1. Studies should be conducted exploring and documenting the empirical relationships between measures of emotionality and a variety of organizationally relevant criteria, such as task performance, ease of learning new tasks, approach and withdrawal behaviors, etc.

2. Research should investigate the relative incremental validity of such measures of emotionality compared to traditional predictors of cognitive ability and personality constructs. The real question concerns whether such measures contribute incremental predictive variance to the various criterion measures.

3. Further research should be conducted to tease apart which emotions (e.g., anger, sadness, joy, etc.) are more predictive of various criterion variables. Similarly, research should be conducted to determine empirically the nature of such relationships; that is, whether the relationships between various emotional displays are positively or negatively related to different criteria.

4. Such research should be explored across several different occupations and organizational conditions (e.g., marketing professions, managers and executives, surgeons, pilots, large versus small companies, government versus private sector organizations, etc.) to determine the potential moderating influence of various boundary conditions.

5. Research should be conducted to descriptively determine the relative boundary and threshold conditions within organizations, jobs, and occupations for emotional displays.

6. Research should be conducted to refine existing measures of emotion and emotionality, and to develop new ones. Such instruments must be valid for the purposes they are used and reliable. They must also meet other expected design parameters such as being easy to administer and score, acceptable to users (subjects as well as scientists), resistant to faking, etc.

7. Although the authors favor the use of self-report measures such as surveys and interviews for measuring emotions and emotionality, research should be conducted to determine the relative merit of the available methods, and which ones, if used in combination, would complement each other.

8. Studies should be conducted to confirm and refine the proposed model developed above.

9. Research should be conducted to investigate the possible moderating and/or mediating roles such constructs as self-monitoring and ambivalence have in the relationships between emotions and organizational variables. This review suggests that these are important variables influencing these linkages.

10. Research is needed to determine the effect of coping styles once emotions have been triggered. Individual differences in coping style may be the intervening or moderating variable through which differences in behaviors result, given the same emotion and situational stimulus.

11. Research is needed to determine the effects of recall of emotional events on respondents, especially in interviews. Are these effects harmful or beneficial, and under what conditions? If effects are harmful, how can they be prevented or reversed?

Applied Reasons for Studying Emotionality in Organizations

As this review makes clear, emotional expression can impact workplace behavior and performance. The effects of emotions and emotionality can be positive or negative depending on the emotions felt and how they are expressed.

As investigators gain a better understanding of emotionality and its expression in organizations, what should personnel managers do? Should they base their personnel selection decisions, in part, on who does or does not conform to organizational norms for emotional expression? Such an approach may be too severe, and ultimately, counterproductive. It may also be unfair. What if organizational norms for emotional expression are too restrictive and actually impede productivity? What if people with a lot to contribute were excluded from organizational entry as a result? Perhaps such people, if selected, could have been catalysts for innovation and change, or particularly effective at motivating others. Consider also the perspective of job applicants. They may consider selection decisions based partly on one's style of emotional expression arbitrary, offensive and unethical. They may argue that they could adapt to

organizational norms for emotional expression regardless of their own preferences. Litigation may follow and the consideration of emotion in selection decisions could be ruled unlawful.

Perhaps as more is learned about emotional expression in organizations, this knowledge could be used more wisely for job classification decisions, rather than for selection. Most people would consider not being hired hurtful. But if knowledge of a person's style of emotional expression were used instead for job classification decisions, it could help that person. It could do so by producing a better fit between a person and his or her job, probably resulting in greater future satisfaction and productivity. It is likely that norms for emotional expression vary by occupation or job category. In addition, a particular style of expressing oneself emotionally, or skill in displaying emotion, may make people better suited for some jobs than others. Actors, for example, may need to be particularly adept at expressing emotion, and people in direct contact with customers need to be pleasant and calm even if confronted with verbal abuse.

There are many other reasons why emotionality should be explored, and uses to which knowledge of individual differences in emotionality could be put. For instance, more attention could be focused on the contribution emotional expression makes to effective leadership. This would be a particularly fruitful area now that new conceptions of leadership are emerging which emphasize transformational, charismatic components (Burns, 1978; Bass, 1985; Conger & Kkanungo 1988; Conger, 1989). Attention should not focus exclusively on leaders but also on the expanding, more active role of followers (Hollander & Offerman, 1990) and on the relationship between leaders and followers which Rost (1991) characterizes as a dynamic, reciprocal influence process. Roles and boundaries are blurred. Both formal leaders and followers sometimes lead and sometimes follow. Leadership can be informal and from the grass-roots. In fact, the follower term may be a misnomer.

Attention also needs to be focused on the part emotionality plays in relations among team members and its impact on team performance. It may be that if team members can bond with each other emotionally and be more demonstrative in expressing caring, concern, liking and respect for each other despite their differences, they will be able to perform better together. In addition, being able to constructively express anger and disagreement may ultimately be beneficial, rather than sweeping discord "under the rug." Studying the impact of emotionality among teams members is particularly important given the trend to encourage teams to be more autonomous, self-managed entities (Manz & Sims, 1987, 1989; Wellins, Byham, & Wilson, 1991).

Emotionality should be studied to help organizations themselves improve their implicit or explicit policies and practices. It is likely that many organizations stifle emotional expression too much and rely too heavily on display rituals where false emotions are expressed but not felt to create a facade of harmony. For instance, in hierarchical structures, subordinates may be expected to show respect--even deference--toward their organizational superiors and seldom, if ever, show anger toward them. As more is known about emotional expression on-the-job, organizations could

be encouraged to relax their normative constraints on emotion expression and explore ways to let felt emotions be expressed constructively, even if they are negative. This may allow members to “clear the air,” communicate more honestly with others, and establish better future relationships with superiors, colleagues and subordinates. New norms may be established which facilitate members bonding with one another and communicating with greater ease and sincerity.

The study of emotionality in organizations also has training implications. As more is known about emotionality in the workplace, and the latitude for emotional expression broadens, members can be trained how to constructively express their emotions for their own good and the good of others. For example, they could be taught how to control outbursts of anger and after having calmed down, to respectfully approach the object of their anger to work toward mutually agreeable solutions to problems which triggered the episode.

A Final Word

It should be very clear that the authors believe that the study of emotions and emotionality in organizations makes sense, that reasonably good measures are currently available and better ones could be developed in the future, and that our initial model of emotionality should be explored and refined. The time is ripe to explore the potential utility of such constructs in predicting job behavior and performance. It is truly timely to open the predictor space to include such constructs and explore the relative incremental validity of such measuring in predicting relevant criterion variables. Not only will science benefit. The enhanced understanding of emotions and emotionality derived from such studies can be used to improve personnel and organizational practices. Hopefully, organizational members will be able to relate better, communicate better and perform better as a result.

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Appendix

Sample Items from Questionnaires Assessing Emotionality

Excerpt from the Wallbott and Scherer Emotionality Questionnaire

Emotion: _____

Please describe a situation or event--in as much detail as possible--in which you felt the emotion given above.

When did this happen?

1. Days ago 2. Weeks ago 3. Months ago 4. Years ago

How long did you feel the emotion?

1. A few minutes 2. An hour 3. Several hours 4. A day or more

How intense was this feeling?

1. Not very 2. Moderately intense 3. Intense 4. Very intense

Below you find a list of bodily symptoms and reactions which often occur in such situations. Please make a check next to each one you experienced in the situation.

Bodily symptoms

_____ Lump in throat _____ Heart beating faster

Expressive reactions

_____ Laughing, smiling _____ Withdrawing from people or things

Verbal reactions

_____ Silence _____ Speech tempo changes

Did you try to hide or control your feelings so that nobody would know how you really felt?

1. Not at all 2. A little 3. Very much 4. Not applicable

Excerpt from King and Emmons' Ambivalence over Emotional Expression Questionnaire (AEQ)

It is hard to find the right words to indicate to others what I am really feeling.

I worry that if I express negative emotions such as fear and anger, other people will not approve of me.

I would like to express my disappointment when things don't go as well as planned, but I don't want to appear vulnerable.

I can recall a time when I wish that I had told someone how much I really cared about them.

I try to suppress my anger, but I would like other people to know how I feel.

I try to apologize when I have done something wrong, but I worry that I will be perceived as incompetent.

I try to avoid sulking even when I feel like it.

I make an effort to control my temper at all times even though I'd like to act on these feelings at times.

Excerpt from King and Emmons' Emotional Expressiveness Questionnaire (EEQ)

I often tell people that I love them.

Watching television or reading a book can make me laugh out loud.

When I am angry people around me usually know.

I laugh a lot.

Whenever people do nice things for me, I feel "put on the spot" and have trouble expressing my gratitude.

If someone makes me angry in a public place, I will "cause a scene".

People can tell from my facial expressions how I am feeling.

Excerpt from the Novaco Anger Inventory

For each of the following items, please rate the degree to which the incident described by the item would anger or provoke you by using the following scale:

1. Not at all 2. A little 3. Some-not much 4. Much 5. Very much

Use the same scale for all of the items. Try to imagine the incident actually happening to you, and then indicate the extent to which it would have made you angry by scoring the answer sheet.

On your way to go somewhere, you discover that you have lost the keys to your car.

Being overcharged by a repairman who has you over a barrel.

People who think they are always right.

Getting your car stuck in the mud or snow.

You are typing a term paper, hurrying to make the deadline, and the typewriter jams.

Employers who take advantage of their employees' need to work by demanding more than they have a right to.

You are in the middle of a dispute, and the other person calls you a "stupid jerk."

Hearing that someone has been deprived of his constitutional rights.

Someone spits at you.

Losing a game you wanted to win.

Hearing that a very wealthy person has paid zero income tax.

You need to get somewhere quickly but the car in front of you is going 25 mph in a 40 mph zone, and you can't pass.

You are in a theater ticket line, and someone cuts in front of you.

Footnotes

¹ These eight primary emotions are also linked to various other constructs, including ego defenses, coping styles, personality traits and other concepts Plutchik (1989) calls "derivatives." In addition, rather than forming a unipolar or bipolar structure, Plutchik states that these primary emotions and their derivatives are a circumplex, or circular, structure in two dimensions, and a cone if three dimensions are considered. The circumplex dimensions are 1) *intensity* (e.g., fear vs. panic), 2) *similarity* (shame and guilt are more similar than love and disgust), and 3) *polarity* (joy vs. sadness) (Plutchik, pp. 6-7). The idea that intensity and polarity differentiate emotions is clear and relatively common. The "similarity" dimension is ambiguous and seems to beg the question of "similar in terms of what?"

² The notion of proximal versus distal antecedents of behaviors is found in attitude and motivation research. Fishbein and Ajzen (1975, p. 381) posited that intention to act is more proximal than attitudes towards the act and, thus, intention is a better predictor of behavior than attitude. Kanfer (1992) noted that different theories of work motivation can be organized in terms of how proximal they are to actual behaviors. More distal constructs like personality, genetics, and needs affect behavior via proximal mediating constructs like intentions and goals (choice processes) and self-regulatory processes.

³ The emotional display at work issue is significant in the United States. Hochschild (1983, pp. 234-241) calculated that six of the twelve US Census Bureau occupational groups contain jobs that primarily involve emotional display or emotional labor: professional and technical, managers and administrators, sales workers, clerical workers, and service workers (inside and outside private households). In addition, many of the fastest growing jobs in the 1980's were emotional labor jobs. Hochschild also noted that in 1980 these jobs were often occupied primarily by women.

⁴ As Van Maanen and Kunda (1989) noted, even in tightly structured and monitored organizations like Disneyland, employees find covert ways to display their anger and frustration (Van Maanen & Kunda, pp. 66-67). Ride operators would pull the seatbelt too tight (the "seatbelt squeeze"), or they could "accidentally" slap the passenger with a hard, plastic part of the seatbelt when they entered or left the ride (the "seatbelt slap"). These displays allowed employees to express emotions in a way that could always be claimed to be an "accident." In short, because strict Disneyland policies prevented more benign forms of emotion expression, such as being curt or telling the customer the conduct was offensive, pent-up frustration and anger was acted out in potentially dangerous ways. In essence, the Disneyland employees were engaging in a form of sabotage of the company product--customer good will. Like American assembly line workers purposely leaving out parts for cars, the Disneyland employees found covert ways to express emotions.

⁵ Whether "affect" in this context is meant as synonymous with mood or emotion is unclear, but the short duration of the moods induced in the experiments suggest Isen and Baron (1991) are treating affect as low intensity, short duration emotionality. This could be considered a "slight

emotion" or a "short mood." Give that the researchers induce the affect, it is unlikely they are assessing personality dispositions. On the other hand, George and Brief (1994) state that positive affect is equivalent to extroversion, a personality trait, and that this trait, along with situational factors, causes positive moods. The confusion over the term complicates research in this area.

⁶ A critical limit to this positive affect research is that the induced affect was mild and short-lived, not much like "emotion," but similar to "mood." Not much emotion is induced by giving subjects free cookies, samples, and coins as is typically done in these studies to induce a positive affect (Isen & Baron, 1991, pp. 11-12). Presumably, positive emotions that are more intense and longer lived will have similar effects on organizational behaviors, but that concept remains to be investigated.

⁷ Attempts to define stress highlight the problem of determining exactly what is meant by negative affect. Negative affect conceivably includes both negative moods (longer-term, low intensity feelings) and negative emotions (short-term, high intensity feelings). Negative moods and emotions, and even personality traits are sometimes described using the same words, like nervous, sad, and worried. George and Brief (1994) equate negative affectivity with neuroticism, a dispositional personality construct, and assert that negative affectivity causes negative moods.

⁸ In organizations, any display of negative emotionality is often the behavior of concern, irrespective of the specific "negative" emotion. Accordingly, organizations may focus more on the display rules for expressing anger, and typically either forbid the expression or it must be expressed in an enervated, symbolic manner. For example, recently, the University of Minnesota created new "guidelines" and a "Threat Assessment Group" to intervene whenever any person feels there is "threatening behavior" (Memorandum, University of Minnesota, December 14, 1994). Interestingly, although what constitutes "threatening behavior" is not defined, the concern appears to be exclusively with displays of negative emotion. This highlights the preoccupation organizations have with displayed negative emotion, although couched in terms of preventing workplace violence.

⁹ Unfortunately, Pekrun and Frese (1992) did not specify what emotions would be triggered by the job. This is particularly problematic since in their model both "positive" and "negative" emotions are likely to be triggered by the same task characteristics. Yet, these could have dramatically different results on job performance. Pekrun and Frese also assume away individual differences in people's responses to task characteristics, stating that with long experience workers all develop similar perceptions of their jobs (Pekrun & Frese, pp. 179-180).

¹⁰ While the stress literature seems to treat emotions as the consequences of stress, they may just as plausibly be the cause of stress.

¹¹ These individual differences in self-monitoring may not be fixed, however. Jobs may cause people to develop higher self-monitoring skills if control of emotional displays is critical (e.g., actors). While the research shows that actors are higher in self-monitoring than other people, whether this is a developed characteristic or the result of self-selection into acting by high self-

monitors is not clear. Before concluding that the skill to display unfelt emotions can be trained, further research is needed.

¹² Latency and the growth rate of emotional intensity are related concepts, and perhaps indistinguishable in reality. However, conceptually there is a distinction between realizing that one feels an emotion (latency), and the time it takes for the person to reach the peak intensity of that emotion (growth rate). The opposite of the growth rate is of course the decay rate, which is the rate at which the emotion declines in intensity until the person is unaware of the emotion. The total time across all dimensions is the duration of the emotion. The authors believe that people vary in terms of sensitivity to felt emotions, and in the rates at which emotions increase and decrease in intensity. Attempting to get exact measures of the shape of the growth and decay curves is probably too ambitious, but the growth and decay might be assessed through verbal protocols. A common sense example of these temporal elements is the variability in how long it appears to take different people to get angry, and then how long they stay angry. Sometimes one incident may provoke all the anger, or a series of similar incidents may provoke the anger over a longer period of time. Whether the better worker is the person slow to anger but whose anger decays slowly and thus there is a racheting effect, or the person who angers quickly and then forgets the incident is a difficult question. But, by analyzing individual characteristics in these dimensions empirical answers may be forthcoming.

¹³ While these factors create the context within which emotional displays occur, they do not completely determine the outcomes. Rafaeli and Sutton (1989) also propose that three other factors influence what emotions are displayed in a given situation (Rafaeli & Sutton, pp. 16-26). At the highest level of generality, the roles a person plays in a situation determine initially what emotional displays are acceptable or desirable. They call this factor "role ground rules," or variations in display according to the roles a person is required to perform. These are generally quite stable and often externally imposed by society and organizations. Within a role, there are "transaction defining cues" that vary across the multiple "transactions" that typically occur within that role. Finally, within a transaction, there is "feedback from the target person" about what emotions should be displayed. Thus, there are basic display norms associated with a role (e.g., a job), a transaction (e.g., a task), and a target (e.g., a customer) that create variability in emotional displays, notwithstanding otherwise constant organizational and occupational norms.

¹⁴ Another problem with inducing emotions is that the eliciting situation is assumed in the induction. Yet, what situations trigger emotions remains one of the key questions in emotionality research. Two more problems arise with induction methods. They are expensive and are more likely to create demand characteristics that bias the results than self-reports.